UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

Coretek Licensing LLC Plaintiff, v Medici Technologies, LLC, Defendant.	CASE NO. 1:22-CV-00763-LY JURY TRIAL DEMANDED

DEFENDANT'S MOTION TO DISMISS FOR
FAILURE TO STATE A CLAIM

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I. INTRODUCTION

The patents asserted in this matter cover two broad and abstract concepts: call "routing" and cellular data "extracting." Three "Routing Patents"[1] address the concept of routing a telephone call while avoiding a particular type of "location register" database. All the Routing Patents are thus negatively defined and oriented around what they do *not* do, with no detail about what replaces the "location register" they seek to avoid. The Routing Patents are invalid for claiming abstract ideas because they attempt to impermissibly preempt all ways to route calls without using specific "location register" databases. One additional "Extraction Patent"[2] claims the idea of extracting, storing, and updating data in a database (here, location data used to determine the location of a VoIP-enabled[3] wireless device). The Extraction Patent, like the Routing Patents, describes no technological means or improvements but is instead directed to extracting pre-existing information and saving it in a database. The asserted patents are directed only to patent-ineligible abstract ideas. Plaintiff Coretek Licensing, LLC's ("Coretek") Complaint against Medici Technologies, LLC ("Medici") fails to state a claim upon which relief can be granted. Fed. R. Civ. P. 12(b)(6).

II. NATURE AND STAGE OF THE CASE

On July 28, 2022, Coretek filed this lawsuit accusing Medici of infringing four patents. D.I. 1. Coretek registered as a Texas corporation on June 18, 2020 and on June 25, 2020 became the assignee of the four Asserted Patents. Since then, it has filed at least 45 complaints alleging infringement of the Asserted Patents in district courts across the country. The vast majority settled before the defendant responded to the complaint. Four defendants filed motions to dismiss under

[1] U.S. Patent Nos. 8,861,512; 9,173,154; and 9,591,551.

[2] U.S. Patent No. 9,369,575.

[3] VoIP stands for "voice over Internet protocol" and generally refers to any technology that allows a user to make phone calls over the Internet instead of an analog phone line.

35 U.S.C. § 101. Three of those cases resolved before the motions were adjudicated.[4] In the final case, the motion to dismiss is fully briefed and pending. *See Coretek Licensing, LLC v. Wildix, Inc,* Case. No. 2:22-cv-02285-EAS-KAJ (S.D. Ohio).

III. SUMMARY OF ARGUMENT

Under 35 U.S.C. § 101, abstract ideas are not eligible for patent protection. Whether patent claims are invalid for claiming an abstract idea is determined using the two-step *Alice* test. First, the court determines whether the patent claims are directed to an abstract idea, and second, the elements of the claims are considered individually and as an ordered combination to determine whether the claims contain an inventive concept that amounts to significantly more than the abstract idea itself. All claims of the Asserted Patents fail both prongs of the *Alice* test.

The Routing Patents' claims are directed to the abstract idea of routing a telephone call without using certain preexisting information (specifically, information in the preexisting Home Location Registry ("HLR") and Virtual Location Registry ("VLR") databases controlled by network operators). The claims do not describe an alternative or superior database but instead seek to generically claim all alternatives to using HLR and VLR database information. Claims that "recite the concept, but not the way to implement it," are ineligible for patenting. *Epic IP LLC v. Backblaze, Inc.*, 351 F. Supp. 3d 733, 740 (D. Del. 2018). Moreover, the negative limitations of the claims wholly preempt all methods of call routing that don't use the HLR or VLR, and the Supreme Court has repeatedly explained that preemption is the underlying "concern that drives" the subject matter eligibility analysis. *Alice Corp. Pty. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

[4] *Coretek Licensing LLC v. Alaska Communications System Group, Inc.,* 1:21-cv-01840-MN-CJB, D.I. 10 (D. Del); *Coretek Licensing LLC v. FreeConferenceCall.com, Inc.*, 1:20-cv-01597-MN-CJB, D.I. 29 (D. Del)*; Coretek Licensing LLC v. Discord Inc.,* 1:21-cv-00304-MN-CJB, D.I. 21 (D. Del.).

Further, the Routing Patents' claims lack an inventive concept "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *See Alice*, 573 U.S. at 218. Both the generic software "module" on the mobile device and the generic application on the server are claimed in purely functional terms and both perform only conventional network functions (e.g., the mobile device "module" communicates with a server over a wireless link and the server software "decides on the appropriate routing."). '512 pat., claim 1. Such routine and conventional network functions do not transform the Routing Patents' claims into a patent-eligible application of an abstract idea. *See, e.g., buySAFE, Inc. v. Google, Inc*., 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.").

Likewise, the Extraction Patent is directed to the abstract idea of storing and extracting information but contains no inventive concept. The claims specify that the stored information is specifically a (pre-existing) "VoIP address or return path" but this merely describes a field of use (i.e., VoIP communications) for the abstract idea of storing and extracting information. *Intellectual Ventures I LLC v. Capital One Bank (USA), N.A.,* 792 F.3d 1363, 1366 (Fed. Cir. 2015) ("An abstract idea does not become nonabstract by limiting the invention to a particular field of use…"). The claims are directed to a system that "extracts" and then "stores" certain location information in a database through "receiv[ing]" VoIP communications, "access[ing]" a database, "extracting and reporting" incoming data, and "communicating" with a wireless device that periodically connects to a server. *See* '575 pat., claim 1. The claims require only generic, unmodified components, invoking computers as a mere tool without presenting anything beyond conventional computer capabilities. They therefore claim non-patentable abstract ideas, and the Court should dismiss the Complaint with prejudice for failure to state a claim upon which relief can be granted.

IV. STATEMENT OF FACTS

Plaintiff's Complaint against Medici contains no allegations relevant to the two-step *Alice* inquiry. *See generally* D.I. 1. Plaintiff did not attempt to articulate any inventive concept. *Id.*

A. The Routing Patents

The '512, '154, and '551 patents (the "Routing Patents") purport to improve wireless communications by operating without standard databases used by network operators, called the Home Location Register ("HLR") and the Virtual Location Register ("VLR").

According to the Routing Patents, an HLR is a preexisting database that contains "mobile subscriber information" for all the operator's mobile subscribers and includes, *inter alia,* location information. '512 pat., 2:3-18. A VLR is also described as a preexisting database owned and maintained by a mobile operator but it includes "temporary information about mobile subscribers that are currently located in a geographic area…but whose HLR is elsewhere." *Id.*, 2:6-10.

The inventors of the Routing Patents appeared to seek to circumvent the network operators' ability to assert control over call routing when HLRs and VLRs were used, asserting that use of these databases allowed operators to "restrict what end-users can do" and did not allow users the "freedom to choose the cheapest network for each call set-up route." *Id.*,1:54-58, 2:40-44. To solve this problem, they "invented" a solution: route calls "without using the network operator's home or visitor location register." *Id.*, 17:35-38. They filed claims that recite this negative limitation and attempt to preempt all ways of routing calls without using an HLR or VLR, as demonstrated by the genericness of the claimed components. For example, the claims require a "module" on a wireless device described only as "downloadable," "software," and capable of sending data to a server. *Id.,* 17:22-33. The claims also require a "software application" on a server that is capable of receiving messages from the module on the wireless device and "deciding on the appropriate routing." *Id.*, 34-36. The claims do not recite a particular method for achieving the

desired goal of not using the HLR/VLR—they simply say to not use them. The '512 patent discloses nothing inventive, but merely recites various generic and routine cellular network functions combined with the improvement of "without using the network operator's home or visitor location register."

Likewise, the various embodiments described in the specification depict the generic idea of replacing the service operator-controlled database with an alternative database that performs the same generic functions. For example, the specification describes installing software on a server that would perform the call routing and "location database" maintenance that the HLR previously handled. The only apparent difference is that the new database is not controlled by the network operators. *See e.g., '*512 pat., 13:63-14:6.

B. The Extraction Patent

The '575 patent (the "Extraction Patent") claims to be directed to a VoIP location system "designed to provide VoIP location information to a server." '575 pat., 1:19-21. The applicants acknowledged that VoIP systems pre-dated the patent application and typically sent and received data by means of a URI (uniform resource identifier), consisting of a URL (uniform resource locator) and a URN (uniform resource name). *Id*., 1:30-35. Extracting the reply from a URI, a "return path," was considered "cumbersome and inflexible as it does not allow receipt of the latest, most up-to-date data or information." *Id*., 1:35-43. Their solution—the purported invention— was to save the return paths to a database on a server. *Id*., 2:35-36. To ensure the data was timely, the database would be updated at regular time intervals. *Id.*, 3:41-59; 9:3-11.

Like the Routing Patents, the applicants of the Extraction Patent described their purported invention only in functional terms and only at a high-level of generality. For example, Claim 1 of the '575 Patent describes "[a] system" in only result-based functional language: (1) "detecting,"

(2) "extracting," (3) "storing," and (4) "updating" a "VoIP address or return path" of any "VoIP enabled wireless device registered to the system." *Id*., cl. 1.

V. LEGAL STANDARDS

A. Dismissal under Fed. R. Civ. P. 12(b)(6)

"To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face.'" *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). Although well-pled facts are taken as true, the Court should disregard "[t]hreadbare recitals of the elements of a cause of action, supported by mere conclusory statements." *Id*. at 678-79.

Patentability under 35 U.S.C. § 101 is a threshold legal issue. *Bilski v Kappos*, 561 U.S. 593, 602 (2010). Accordingly, a patentability challenge under § 101 may be resolved on the pleadings, before claim construction, if it is apparent from the face of the patent that the asserted claims are directed to ineligible subject matter. *See, e.g., Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 718-19 (Fed. Cir. 2014) (Mayer J., concurring); *Bancorp Servs. L.L.C. v Sun Life Assur. Co*., 687 F.3d 1266, 1273 (Fed. Cir. 2012). The Federal Circuit has affirmed numerous § 101 dismissals at the pleading stage. *See, e.g*, *Yu v. Apple Inc.*, 1 F.4th 1040, 1043 (Fed. Cir. 2021).

B. Patent eligibility under 35 U.S.C. § 101

"[L]aws of nature, physical phenomena, and abstract ideas" are not patentable subject matter. *Diamond v Chakrabarty*, 447 U.S. 303, 309 (1980). "[A]bstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work" and allowing a monopoly over these ideas would preempt their use in all fields. *Bilski*, 561 U.S. at 611-12, 653 (internal quotations omitted). The principle of preemption is the basis for the judicial exceptions to patentability. *Alice*, 573 U.S. at 216. "[P]reemption may signal patent ineligible subject matter"

but "the absence of complete preemption does not demonstrate patent eligibility." *Ariosa Diagnostics, Inc. v. Sequenom, Inc*., 788 F.3d 1371, 1379 (Fed. Cir. 2015).

The Supreme Court has articulated a two-step framework for determining whether a patent claim is directed to a patent-ineligible abstract idea. *Alice Corp. Pty. Ltd. V. CLS Bank Int'l*, 573 U.S. 208, 218 (2014). In step one, the court determines "whether the claims at issue are directed to a patent-ineligible concept." *Id*. In so doing, the court must determine "whether the claims focus on a specific means or method that improves the relevant technology or **are directed to a result or effect that itself is the abstract idea** and **merely invoke generic processes** and machinery." *Apple, Inc. v. Ameranth, Inc*., 842 F.3d 1229, 1241 (Fed. Cir. 2016) (internal quotations omitted) (emphasis added).

In the second step, if the claim is directed to an abstract idea, the court then assesses whether there is "an 'inventive concept'—i.e., an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Alice*, 573 U.S. at 217. However, "a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Id.* at 223.

Transformation into a patent-eligible invention "requires more than '[s]imply stating [the] abstract idea while adding the words 'apply it.'" *Id*. at 223 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc*., 566 U.S. 66, 76 (2012). A claim is not meaningfully limited if it includes only token or insignificant pre- or post-solution activity—such as identifying a field of use. *See e.g., Mayo,* 566 U.S. at 79-80. Finally, "simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable." *Mayo*, 566 U.S. at 82.

VI. ARGUMENT

A. The Routing Patents are invalid under 35 U.S.C. § 101.

1. Claim 1 of the ’512 patent is representative.

In concurrent litigation, Plaintiff agreed that claim 1 of the ’512 patent is representative of the claims in the Routing Patents for purposes of the §101 analysis. *See Coretek Licensing, LLC v. Wildix, Inc,* Case. No. 2:22-cv-02285-EAS-KAJ, D.I. 20 at 3 (S.D. Ohio).

2. *Alice* step 1: The Routing Patents are directed to an abstract idea.

In assessing whether a claim is directed to an abstract idea, courts begin by analyzing the “focus” of the claim, i.e., its “character as a whole,” to determine whether the claim is directed to an abstract idea. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). For example, the Federal Circuit has explained that courts should examine a patent’s “‘claimed advance’ to determine whether the claims are directed to an abstract idea.” *Finjan, Inc. v. Blue Coat System, Inc*., 879 F.3d 1299, 1303 (Fed. Cir. 2018). The “focus” of Claim 1 is the fundamental practice of call routing, and the claimed advance is performing call routing “without using the network operator’s home or visitor location register.” ’512 pat., claim 1.

It is well-established that routing data (with or without certain information) is an abstract idea not eligible for patent protection. *See e.g., Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (claims directed to “routing information using result-based functional language” invalid as abstract).[5] Moreover, beyond Claim 1’s negative limitation (which fails to articulate how the claimed call routing is accomplished), the claim limitations recite nothing more than the conventional tasks of initiating a network connection, contacting a server over a wireless link, and sending and receiving data. The critical inventive improvement merely removes an additional step imposed by network providers at the time (i.e., using the HLC or VLC),

[5] In *Two-Way*, the CAFC affirmed the District Court’s ruling invalidating a claim that, like the Routing Patents and Extraction Patent, required functional results of “converting,” “routing,” “controlling,” “monitoring,” and “accumulating records,” when it did not sufficiently describe *how* to achieve these results in non-abstract way even when taking into account patentee's proposed construction, which recited only conventional computer components. *See generally id.*

and effectively directs the practice of the patent by instructing the POSITA to arrange for the routing of the data/call request "without using the network operator's home or visitor location register" without specifying *how* to do this, other than to use the undefined "module implemented as software." These conventional tasks are quintessential patent-ineligible abstract ideas. *Mayo*, 566 U.S. at 82, ("[S]imply appending conventional steps, specified at a high level of generality" does not make claims patent eligible.).

In addition, precedent demonstrates that representative claim 1 is directed to an abstract idea because: (1) it does not recite a technological solution to a technological problem and therefore does not improve computer functionality, (2) it discloses only generalized steps drafted in purely functional terms, and (3) it is analogous to well-known, longstanding practices.

a) Call routing claims have been found directed to an abstract idea

Claims analogous to representative claim 1 have been found invalid for claiming an abstract idea. For example, in *Voip-Pal.Com, Inc. v. Apple Inc.*, claims purporting to invent "a distinct manner of call routing" were found invalid as abstract. 411 F. Supp. 3d 926, 952 (N.D. Cal. 2019), *aff'd,* 828 F. App'x 717 (Fed. Cir. 2020). To route calls, the *Voip-Pal.Com* claims were directed to "access[ing] a database comprising user profiles" and "locat[ing]" a user profile associated with a participant identifier. *Id.* But the claims did "not cover the initial creation of the database," and it was likewise clear that the Patents-in-Suit did not invent the "user profile" or the attributes it contained. *Id.* at 953. The final step of the claims was directed to a "routing message" but "fail[ed] to explain how a routing message is produced or how it 'causes' the communication to be established." *Id*. at 954. The court therefore concluded (and the Federal Circuit affirmed) that the claims were directed to "the abstract idea of routing a communication based on characteristics of the participants." *Id.* at 955. Here, the claims provide no information on how the claimed routing is achieved, merely directing that routing is done "without using the network operator's home or

visitor location register." '512 pat., 17:35-37. Like the *Voip-Pal.Com* claims, this negative limitation provides no information on how routing without the HLR/VLR **is** accomplished.

Many other cases have likewise found claims directed to routing calls or messages directed to an abstract idea. *See e.g., Two-Way Media Ltd*, 874 F.3d at 1337 (claims abstract because they recit[e] a method for routing information using results-based functional language required the functional results of 'converting,' 'routing,' 'controlling,' 'monitoring,' and 'accumulating records,' but do[] not sufficiently describe how to achieve these results in a non-abstract way."); *Intell. Ventures I LLC v. Symantec Corp.,* 838 F.3d 1307, 1312 (Fed. Cir. 2016) (patent "directed to methods of routing e-mail messages based on specified criteria (i.e., rules)" abstract, including because the claims were analogous to a corporate mailroom)*; RingCentral, Inc. v. Dialpad, Inc.*, 372 F. Supp. 3d 988, 998 (N.D. Cal. 2019) (routing a call based on routing parameters such as time of day and allowing user modification of those parameters was an abstract idea); *Twilio, Inc. v. Telesign Corp.*, 249 F. Supp. 3d 1123, 1147 (N.D. Cal. 2017) ("[S]electing the best message routing option based on separately-transmitted feedback is a fundamental human activity, applied to a specific technical environment," and is "an abstract idea."); *Teliax Tech. LLC et al. v. Affinity Network, Inc.*, 2022 WL 11158348, at *7 (D. Nev. Oct. 19, 2022) (routing a call based on a "RESPORG" ID (*i.e.* an identification obtained from an FCC process that allows use of 1-800 and other toll free numbers) of a called party was found to be an abstract idea).

Like in each of these cases, the broad language of representative claim 1 covers only the resulting system the applicants envisioned, but does not teach how to achieve it, much less how to achieve it in a non-abstract way. *See also Internet Patents Corp. v. Active Network, Inc*., 790 F.3d 1343, 1348 (Fed. Cir. 2015) (claim not directed to patent-eligible subject matter where "[t]he mechanism for maintaining the state is not described, although this is stated to be the essential

innovation"). Claim 1 is abstract because "the process of sending a network routing message is not unique to the patent, and is implemented using generic computers." 375 F. Supp. 3d at 1141.

b) The Routing Patents do not improve computer functionality, but rather describe the invention in purely functional terms.

The Routing Patents' claims are not directed to a technological solution to a technological problem. Providing call routing functionality through a "module" on a conventional "wireless device" and running a "software application" on a conventional "server," requiring no modification, is not an "improvement in computer capabilities," but rather "a process that qualifies as an abstract idea for which computers are invoked merely as a tool." *See Enfish, LLC v. Microsoft Corp*., 822 F.3d 1327, 1336 (Fed. Cir. 2016). Any alleged cost savings or functional improvements that may result from Claim 1 arise wholly out of the conventional advantages of using such generic processing and components as tools. *See Elec. Power Grp., LLC v. Alstom S.A*., 830 F.3d 1350, 1354 (Fed. Cir. 2016) (distinguishing patent eligible improvements in computer functionality from patent ineligible improvements that use computers as tools).

Moreover, Coretek's claims say nothing about how the claimed routing could be done, providing almost no limits on how non-HLR/VLR information could be used to route calls. By only claiming the desired result—routing calls without HLR/VLR—without describing any specific roadmap for doing so, claim 1 of the '512 Patent falls short of claiming eligible subject matter. *See Internet Patents*, 790 F.3d at 1348 (affirming claim 1 directed to an abstract idea because it contained "no restriction on how the result [was] accomplished"). And because of its largely functional nature, the '512 Patent risks preempting all methods or systems for routing calls. *See, e.g., Loyalty Conversion Sys. Corp. v. Am. Airlines, Inc*., 66 F. Supp. 3d 829, 843 (E.D. Tex. 2014) (finding "preemptive effect . . . broad" where "the claims [were] largely functional in nature, they [did] not provide any significant description of the particular means by which the various recited functions are performed," and **"[a]ll that [was] disclosed [was] the ultimate objective**")

(emphasis added). Claim 1 thus fails *Alice* step one because it is directed to a patent-ineligible concept. *Alice*, 573 U.S. at 217.

c) The claims are analogous to longstanding call routing practices.

The idea of routing without using certain information controlled by a network operator is analogous to well-known, longstanding practices. For example, manual call routing in a traditional telephone control room used location information—such as a phone number area code—to route calls. Such methods did not implicate any VLR or HLR databases. For this additional reason, the concept of routing calls without use of a network-operator controlled VLR or HLR database as claimed is "well-known and abstract." *See, e.g., Intellectual Ventures I*, 838 F.3d at 1318-20 (claims related to "receiving, screening, and distributing email" were directed to an abstract idea because they were analogous to the steps performed by individuals in corporate mailrooms); *see also Caselas, LLC v. VeriFone, Inc.*, No. 1:21-CV-3834-VMC, 2022 WL 3971039, at *7 (N.D. Ga. Aug. 30, 2022) (Claim essentially described the abstract concept of underwriting performed over Internet, which was a foundational concept in commerce and was therefore abstract).

3. *Alice* step 2: the Routing Patents' claims contain no inventive concept.

Step 2 does not save these patent ineligible claims. "[T]o transform an unpatentable law of nature [or abstract idea] into a patent-eligible application of such law [or abstract idea], one must do more than simply state the law of nature [or abstract idea] while adding the words 'apply it.'" *Mayo,* 566 U.S. at 71 (2012) (emphasis omitted). The claims merely recite applying the abstract idea using generic components to perform conventional call routing actions.

a) The individual claim elements are generic and provide no inventive concept individually or as an ordered combination.

The Routing Patents' claims recite only generic telecommunications hardware—a "wireless device" and a "server." '512 pat., claim 1. The patent specification admits that these are conventional, explaining that "any available current and future" versions of these components may

be used in the invention. *Id.* at 8:1-31. *See also id.* at 5:44-64 (wireless devices and network are "configured in accordance with a combination of technologies used in the field…"); 9:6-7 (describing use of "existing wireless networks"). However, merely "[r]eciting an abstract idea and applying it on telephone network equipment is not enough for patent eligibility." *Reese v. Sprint Nextel Corp.*, 774 F. App'x 656, 661 (Fed. Cir. 2019). *See also buySAFE*, 765 F.3d at 1355 ("receiv[ing] and send[ing] information over a network ... is not even arguably inventive."). The use of generic computer elements does not transform an otherwise abstract idea into patent-eligible subject matter. *DDR Holdings*, *LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014).

The Routing Patents claim no unique method of call routing either, instead including only the results-oriented language "deciding on the appropriate routing" and the negative limitation "without using the network operator's home or visitor location register." **This is a statement of the result of the abstract idea itself.** The claims are not "focus[ed] on a specific means or method that improves the relevant technology [but] are instead directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery." *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (citing *Enfish*, 822 F.3d at 1336); *Two-Way Media,* 874 F.3d at 1339 (affirming no inventive concept for claim for "data being routed in response to one or more signals from a user, without specifying the rules forming the communication protocol or specifying parameters for the user signals.").

The alleged improvement also fails to provide an inventive concept. The patent specification vaguely explains that the "server will typically decide on the lowest cost route for the connection." '512 pat., 3:41-42. At best, the patents explain that a lower cost is the result of not using network operator controlled HLR and VLR databases that purportedly underlie "an operator's ability to restrict what end-users can do." '512 pat., 2:40-43. But Claim 1 does not describe any specific mechanism for achieving the result of routing calls without using the HLR

and VLR. *See Epic IP LLC,* 351 F. Supp. 3d at 740 (claims that "recite the concept, but not the way to implement it," are ineligible for patenting). The claims are altogether devoid of any explanation as to how to implement the invention in a specific manner that would improve the functioning of existing systems or components from a technical standpoint and thus provide no inventive concept. *See In re TLI Commc'ns LLC Pat. Litig*., 823 F.3d 607, 615 (Fed. Cir. 2016).

Finally, the generic references to "software" on the wireless device and on the server does not provide an inventive concept. The software is described in purely functional terms. The software "module" on the mobile device "communicates with the server over a wireless link" and the software "application" on the server receives requests from the mobile device and routes calls. '512 pat., claim 1. Where, as here, software components are described as performing generic telecommunications actions such as call routing and data transfer, they cannot provide an inventive concept either. *Two-Way Media Ltd.*, 874 F.3d at 1337; *see also Alice*, 573 U.S. at 223 ("wholly generic computer implementation" insufficient to provide inventive concept).

Therefore, the claims recite nothing more than the abstract idea itself, *i.e., routing calls without* using an HLR/VLR database. Indeed, the claims attempt to monopolize this abstract idea. They "inhibit further discovery by improperly tying up the future use of" the claimed abstract idea. *CLS Bank,* 717 F.3d at 1280, quoting *Mayo,* 132 S.Ct. at 1301. They violate the precept that "claims should not be coextensive with a natural law, natural phenomenon, or abstract idea; a patent-eligible claim must include one or more substantive limitations that ... add 'significantly more' to the basic principle, with the result that the claim covers significantly *less.*" *CLS Bank,* 717 F.3d at 1281, quoting *Mayo,* 132 S.Ct. at 1294 (emphasis in original). Where, as here, "a claim threatens to subsume the full scope of a fundamental concept" it is patent ineligible. *Id.* In this case, the Routing Patents claim a monopoly over all wireless "call requests" made "without using the network operator's home or visitor location register." '512 pat., claim 1. For example, this

essentially encompasses calls made over Wi-Fi, in which wireless devices contact and send data constituting a call to servers without using an HLR or VLR because the "wireless network operator" in such a case is the private owner of the Wi-Fi router who has no user registries.

For these reasons, the claims of the Routing Patents are not limited to a particular application of the abstract idea of routing a call without using information in an HLR or VLR database. The recited limitations are insufficient to add "significantly more" to the abstract idea and thus lack any "inventive concept." *See Alice*, 572 U.S. 217-218.

b) The dependent claims provide no inventive concept.

The dependent claims also do not provide an inventive concept. Rather, they recite only further conventional features of telecommunications systems. Many of the dependent claims recite only that a particular well-known communications protocol or method is used by the server and/or wireless device, such as SMS (Short Message Service), MAP (Mobile Application Protocol), HTTP (Hypertext Transfer Protocol), or the internet.[6] The patents admit that these protocols are conventional, and not the subject of the invention. *See e.g.,* '512 pat., 6:50-52 (describing generic connections); 9:1-31 ("any available current and future" technologies); 10:18-19 ("standard SMS protocol"). Other dependent claims specify that data may be manually entered into the server.[7]

Some server-focused dependent claims specify that the server has a database of location updates provided by the mobile device, and that the locations stored in the server database are used for call routing.[8] Adding a "location update" module that sends and receives location data from a server so that it can "decide on the appropriate routing" does not result in a technical improvement

[6] '512 patent, claims 2, 3, 4, 21; '154 patent, claims 2, 3, 20; '551 patent claims 7, 12, 16.

[7] '512 patent, claim 5; '154 patent, claim 4; '551 patent claim 13.

[8] '512 patent, claims 9, 10, 13, and 22(b), (c), and (e); '154 patent, claims 8, 9, 12 and 21(b), (c) and (e); '551 patent claims 15. Notably, the Complaint does not allege infringement of any claims referring to the server location database. *See* Complaint ¶¶ 24, 41, 70.

on prior art technology or a new and improved arrangement of components. See *id*. at 10:1. Rather, these claims merely replace the location databases controlled by the network operators (the HLR and VLR) with location databases that are not controlled by the network operators. Merely changing which entity has control of a database is not a technological improvement nor an inventive concept that would entitle the inventors to patent protection. *Maxon, LLC v. Funai Corp., Inc.*, 726 F. App'x 797, 799 (Fed. Cir. 2018) (claims directed to the abstract idea of "decentralized delivery **controlled by the owner** of a plurality of devices" affirmed invalid) (emphasis added).

The remaining dependent claims recite only generic telecommunications features and token pre- or -post solution activity, none of which is sufficient to supply an inventive concept. *See Ultramercial,* 772 F.3d at 715-716 (explaining claims are not meaningfully limited when they contain only insignificant or token pre- or post- solution activity).

Dependent Claims:	**Directed to:**
'512 patent, claims 6, 7, 20 '154 patent, claims 5, 6, 19 '551 patent, claim 9	**generic server actions taken once a call is detected or established,** including setting up a conference call, monitoring external server interfaces, and selecting "lowest cost routing."
'512 patent, claims 8, 11 '154 patent, claims 7, 10 '551 patent claims 2, 5, 6, 11	**generic functions of the server**, including that it may be a "media server" (*e.g.,* it can route video and audio files), "application server," act as a VoIP server, or determine routing on available networks.[9]
'512 patent, claims 12, 14-19 '154 patent, claims 11, 13-18 '551 patent claims 3, 4, 9, 8, 10, 14, 17-21	**generic functions of the downloadable module on the wireless device**, including establishing communications with the server, sending any changes to the server, sending time clock data with messages, monitoring caller features (*i.e.,* international calls, "incoming call signaling" and caller ID), and notifying a user whether a call was connected or timed-out.

A. The Extraction Patent is invalid under 35 U.S.C. § 101.

1. Claim 1 of the '575 patent is representative

[9] The specification admits that media servers and VoIP servers were already well known. *See e.g.,* '512 pat., 6:4-14 (the "media server" is "configured in accordance with a combination of technologies used in the field…"); 9:13-16 (VoIP according to "any available current or future" technologies used).

In concurrent litigation, Plaintiff does not dispute that claim 1 of the '575 patent is representative of the claims in the Extraction Patent for purposes of the §101 analysis. *See Coretek Licensing, LLC v. Wildix, Inc,* Case. No. 2:22-cv-02285-EAS-KAJ, D.I. 20 at 15-18 (S.D. Ohio).

2. *Alice* step 1: Extraction Patent is directed to an abstract idea.

The claims of the Extraction Patent are directed to the abstract idea of extracting, storing, and updating data in a database. The alleged invention allegedly provides an "automated way of identifying and reporting" location "to a database" for subsequent use. '575 Patent, 2:33-35. Specifically, the claims are directed to extracting and storing certain pre-existing location information (a "return path" or "VoIP location") in a database that is periodically updated. *See* '525 pat., claim 1. The patent fails to disclose any technical details of how the system receiving a "return path" from a database advances technology. Rather, the alleged benefit is simply that VoIP location information may be obtained from an up-to-date database rather than through an on-demand request for location. '575 pat., 1:28-39. The alleged invention is analogous to a phone book. Before the phone book was invented, to obtain a phone number you would have to either ask someone directly for their phone number or call the operator. By simply creating a database of everyone's phone number (the phone book), the time and expense of making individual requests for phone numbers could be avoided. The "one or more accessible databases" in claim 1 of the Extraction Patent are nothing more than the phone book for the age of computers.

The Extraction Patent also fails to claim any improvement in database functionality. Claim 1 of the Extraction Patent requires four generic components to achieve the goals of the purported invention: "a server," a "VoIP enabled wireless device," a "software module," and "databases." Detecting, extracting, and storing pre-existing location information (such as a device's "VoIP address or return path") in a generic database is not an "improvement in computer capabilities," but rather "a process that qualifies as an abstract idea for which computers are invoked merely as

a tool." *See Enfish*, 822 F.3d 1327, 1336. The benefits discussed are simply power and cost savings "benefits that flow from performing an abstract idea in conjunction with a well-known database structure." *BSG Tech LLC v. Buyseasons, Inc.,* 899 F.3d 1281, 1288 (Fed. Cir. 2018).

The claimed steps fall squarely within Supreme Court and Federal Circuit precedent finding that merely adding a conventional database to the invention does not render it patent eligible. *See e.g., Alice,* 573 U.S. at 226 ("Nearly every computer will include a 'communications controller' and a 'data storage unit' capable of performing the basic calculation, storage, and transmission functions required[.]"); *Mortg. Grader, Inc. v. First Choice Loan Serv. Inc.,* 811 F.3d 1314, 1324–25 (Fed. Cir. 2016) (claims reciting "interface," "network," and "database" nevertheless directed to an abstract idea); *Accenture Global Servs. GmbH v. Guidewire Software, Inc.,* 728 F.3d 1336, 1344 (Fed. Cir. 2013) (database did not make claims patent eligible).

Likewise, the claims recite only generic components performing the abstract idea of call routing, and specifically a "software module," "dynamic return path," and "server" that perform the abstract idea of storing and extracting data. The '575 Patent explains that, instead of relying "on the mobile network VoIP 'Routing Area'," a wireless device downloads a "software module" that sends and receives data from a server. '575 pat., 3:14-18. Specifically, the software module "at certain time intervals authenticates and connects to a server which is part of the system," and the server "simply extracts and stores the VoIP Location address in the corresponding database user data." *Id*. at 8:5-6. The "VoIP return path or also known in the industry as PSPDN (packet switched public data network)," is an address to a public network operated by a telecommunications network and was known in the art. *Id*. at 7:20-22. The VoIP return path "(i.e., the user's device VoIP location)" simply identifies the related public network for that location. *Id*. at 1:47. The VoIP location "address is stored in VoIP Location server 100 or in external database

101 accessible to the server 100 and updated by the wireless devices" by using the "software module." *Id*. at 7:22-24. The claims do not provide an improvement in call routing technology.

The functional language confirms the abstractness of Claim 1. Like in *Two-Way Media* (discussed above in IV.A.1), Claim 1 requires the functional results of "detecting" "extracting," "storing," and "updating" data, "but does not sufficiently describe how to achieve these results in a non-abstract way." 874 F.3d at 1337. Claim 1 fails *Alice* step one. *Alice*, 573 U.S. at 217.

3. *Alice* step 2: the Extraction Patent claims contain no inventive concept sufficient to confer patent eligibility.

The Extraction Patent's stated goal is to provide a "reliable return path (i.e., VoIP location) whilst ensuring minimal required power consumption." '575 Patent, 3:11-12. But not a single technical improvement is recited to achieve this result: Claim 1 requires a "database," "server," and "software module," where the "software module" is downloaded onto a mobile device and "connect[s] . . . to the server . . . at certain time intervals." *Id*., 3:41-44. No special programming or improved components are claimed or required.

The Extraction Patent identifies no particular mechanism for achieving the result of a less expensive, power-saving VoIP system. The generic "software module" does nothing more than send and receive data from a server "at certain time intervals." *Id.*, claim 1. Merely "recit[ing] a handful of generic computer components" does not make a claim any less abstract. *Alice,* 573 U.S. at 226. And connecting to "authenticate to the server of the Dynamic VoIP location system" and switching to a "power savings" mode is a generic functional limitation, not a claimed improvement to "the functioning of the computer itself." *Id.* at 225; '575 pat., 3:41-46. This is the same as saying that a machine that enters a "sleep" mode over a time interval of non-use is "inventive."

Nor are any special components needed. "Nothing in [Claim 1] . . . requires anything other than off-the-shelf, conventional computer, network and [processing] for gathering, sending, and presenting the desired information." *Elec. Power*, 830 F.3d at 1355. There is nothing inventive

about extracting and storing pre-existing information, nor is there anything inventive about a "software module" sending and receiving information from a "server" over some time interval—these are routine, conventional tasks. *See In re TLI,* 823 F.3d at 615; *see also buySAFE*, 765 F.3d at 1355 ("That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive."); *Twilio, Inc*., 249 F. Supp. 3d 1123, 1156 ("[C]laim 15 simply claims a technology-independent abstract process that can be deployed with any communication network."). Further, there is nothing inventive about sending and receiving a pre-existing VoIP return path, which is simply the user's device VoIP location. *See BSG Tech*, 899 F.3d 1281, 1290-91; '575 pat., 1:35-37 ("This 'return path' is . . . the user's device VoIP location.").

The dependent claims do not provide an inventive concept either. The dependent claims add only token or insignificant pre- or post-solution activity such as specifying the type of data sent or received from a VoIP device (claims 2, 4, 7, 12); the time interval (claim 3); multiple VoIP wireless devices (claims 5, 6); where a server stores data and how it is downloaded (claims 8, 10); the types of VoIP devices (claims 9, 13); additional actions performed by the software module (claim 11); and the data communications protocol (claim 14).

VII. CONCLUSION

For the foregoing reasons, Asserted Patents are invalid under 35 U.S.C. § 101 and *Alice*. 573 U.S. at 217. Defendant respectfully requests the Complaint be dismissed with prejudice.

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Respectfully submitted,

/s/ Audrey F. Momanaee
Audrey F. Momanaee

Counsel for Defendant Medici Technologies, LLC

Audrey F. Momanaee
amomanaee@balch.com
Texas Bar No. 24055993

BALCH & BINGHAM LLP
811 Louisiana Street, Suite 1010
Houston, Texas 77002
Ph: 713-362-2557

Marcus R. Chatterton
Pro Hac Vice request forthcoming
Email: mchatterton@balch.com
James T. Dawkins
Pro Hac Vice request forthcoming
USPTO Reg. No. 79,093
Email: jdawkins@balch.com
BALCH & BINGHAM LLP
1901 6th Avenue North, Suite 1500
Birmingham, AL 35203
Telephone: (205) 251-8100
Facsimile: (205) 226-8799

ATTORNEYS FOR DEFENDANT
MEDICI TECHNOLOGIES, LLC

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of this document was served pursuant to the Federal Rules of Civil Procedure on November 28, 2022, to the all counsel of record including the following:

Andrew S. Curfman
Sand, Sebolt & Wernow Co., LPA
Aegis Tower - Suite 1100, 4940 Munson Street Nw
Canton, OH 44718
(330) 244-1174
andrew.curfman@sswip.com

Counsel of record for Coretek Licensing, LLC

/s/ Audrey F. Momanaee
Audrey F. Momanaee